

Steven Chesley

List of Publications by Year in descending order

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Version: 2024-02-01

71
papers

4,138
citations

117625

34
h-index

114465

63
g-index

75
all docs

75
docs citations

75
times ranked

2442
citing authors

#	ARTICLE	IF	CITATIONS
1	Regions of slow apparent motion of close approaching asteroids: The case of 2019 OK. <i>Icarus</i> , 2022, 373, 114735.	2.5	3
2	The Double Asteroid Redirection Test (DART): Planetary Defense Investigations and Requirements. <i>Planetary Science Journal</i> , 2021, 2, 173.	3.6	110
3	Bennu's Natural Sample Delivery Mechanism: Estimating the Flux of Bennuid Meteors at Earth. <i>Journal of Geophysical Research E: Planets</i> , 2021, 126, e2020JE006817.	3.6	4
4	Ephemeris and hazard assessment for near-Earth asteroid (101955) Bennu based on OSIRIS-REx data. <i>Icarus</i> , 2021, 369, 114594.	2.5	28
5	Internal rubble properties of asteroid (101955) Bennu. <i>Icarus</i> , 2021, 370, 114665.	2.5	15
6	A Novel Approach to Asteroid Impact Monitoring. <i>Astronomical Journal</i> , 2021, 162, 277.	4.7	5
7	Star catalog position and proper motion corrections in asteroid astrometry II: The Gaia era. <i>Icarus</i> , 2020, 339, 113596.	2.5	22
8	Heterogeneous mass distribution of the rubble-pile asteroid (101955) Bennu. <i>Science Advances</i> , 2020, 6, .	10.3	50
9	Photometry of Particles Ejected From Active Asteroid (101955) Bennu. <i>Journal of Geophysical Research E: Planets</i> , 2020, 125, e2020JE006381.	3.6	23
10	Trajectory Estimation for Particles Observed in the Vicinity of (101955) Bennu. <i>Journal of Geophysical Research E: Planets</i> , 2020, 125, e2019JE006363.	3.6	51
11	Initial Orbit Determination and Event Reconstruction From Estimation of Particle Trajectories About (101955) Bennu. <i>Earth and Space Science</i> , 2020, 7, e2019EA000937.	2.6	14
12	Thermal Fatigue as a Driving Mechanism for Activity on Asteroid Bennu. <i>Journal of Geophysical Research E: Planets</i> , 2020, 125, e2019JE006325.	3.6	40
13	Introduction to the Special Issue: Exploration of the Activity of Asteroid (101955) Bennu. <i>Journal of Geophysical Research E: Planets</i> , 2020, 125, e2020JE006549.	3.6	23
14	Autonomous Detection of Particles and Tracks in Optical Images. <i>Earth and Space Science</i> , 2020, 7, e2019EA000843.	2.6	9
15	Dynamical Evolution of Simulated Particles Ejected From Asteroid Bennu. <i>Journal of Geophysical Research E: Planets</i> , 2020, 125, e2019JE006229.	3.6	23
16	Particle Ejection Contributions to the Rotational Acceleration and Orbit Evolution of Asteroid (101955) Bennu. <i>Journal of Geophysical Research E: Planets</i> , 2020, 125, e2019JE006284.	3.6	12
17	Recoverability of Known Near-Earth Asteroids. <i>Astronomical Journal</i> , 2020, 160, 250.	4.7	2
18	Planetary encounter analysis on the B-plane: a comprehensive formulation. <i>Celestial Mechanics and Dynamical Astronomy</i> , 2019, 131, 1.	1.4	18

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19	Development of a Realistic Set of Synthetic Earth Impactor Orbits. , 2019, , .		4
20	Detection of Rotational Acceleration of Bennu Using HST Light Curve Observations. Geophysical Research Letters, 2019, 46, 1956-1962.	4.0	36
21	The operational environment and rotational acceleration of asteroid (101955) Bennu from OSIRIS-REx observations. Nature Communications, 2019, 10, 1291.	12.8	99
22	The dynamic geophysical environment of (101955) Bennu based on OSIRIS-REx measurements. Nature Astronomy, 2019, 3, 352-361.	10.1	132
23	Episodes of particle ejection from the surface of the active asteroid (101955) Bennu. Science, 2019, 366, .	12.6	129
24	Assessing possible mutual orbit period change by shape deformation of Didymos after a kinetic impact in the NASA-led Double Asteroid Redirection Test. Advances in Space Research, 2019, 63, 2515-2534.	2.6	21
25	A Software Roadmap for Solar System Science with the Large Synoptic Survey Telescope. Research Notes of the AAS, 2019, 3, 51.	0.7	6
26	Spitzer Observations of Interstellar Object 1I/â€œOumuamua. Astronomical Journal, 2018, 156, 261.	4.7	80
27	Infrared Light Curves of Near-Earth Objects. Astrophysical Journal, Supplement Series, 2018, 238, 22.	7.7	4
28	Near-Earth Object Orbit Linking with the Large Synoptic Survey Telescope. Astronomical Journal, 2017, 154, 13.	4.7	22
29	High-fidelity Simulations of the Near-Earth Object Search Performance of the Large Synoptic Survey Telescope. Astronomical Journal, 2017, 154, 12.	4.7	31
30	Statistical analysis of astrometric errors for the most productive asteroid surveys. Icarus, 2017, 296, 139-149.	2.5	60
31	The impact trajectory of asteroid 2008ÂˆTC3. Icarus, 2017, 294, 218-226.	2.5	20
32	OSIRIS-REx: Sample Return from Asteroid (101955) Bennu. Space Science Reviews, 2017, 212, 925-984.	8.1	426
33	Simultaneous Mass Determination for Gravitationally Coupled Asteroids. Astronomical Journal, 2017, 154, 76.	4.7	25
34	Constraints on the near-Earth asteroid obliquity distribution from the Yarkovsky effect. Astronomy and Astrophysics, 2017, 608, A61.	5.1	22
35	The geophysical environment of Bennu. Icarus, 2016, 276, 116-140.	2.5	92
36	The trajectory and atmospheric impact of asteroid 2014 AA. Icarus, 2016, 274, 327-333.	2.5	29

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37	NEOSURVEY 1: INITIAL RESULTS FROM THE WARM SPITZER EXPLORATION SCIENCE SURVEY OF NEAR-EARTH OBJECT PROPERTIES. <i>Astronomical Journal</i> , 2016, 152, 172.	4.7	20
38	High precision comet trajectory estimates: The Mars flyby of C/2013 A1 (Siding Spring). <i>Icarus</i> , 2016, 266, 279-287.	2.5	13
39	Direct Detections of the Yarkovsky Effect: Status and Outlook. <i>Proceedings of the International Astronomical Union</i> , 2015, 10, 250-258.	0.0	8
40	Systematic ranging and late warning asteroid impacts. <i>Icarus</i> , 2015, 258, 18-27.	2.5	38
41	The Yarkovsky effect for 99942 Apophis. <i>Icarus</i> , 2015, 252, 277-283.	2.5	33
42	The OSIRIS-REx target asteroid (101955) Bennu: Constraints on its physical, geological, and dynamical nature from astronomical observations. <i>Meteoritics and Planetary Science</i> , 2015, 50, 834-849.	1.6	168
43	Star catalog position and proper motion corrections in asteroid astrometry. <i>Icarus</i> , 2015, 245, 94-111.	2.5	71
44	The Yarkovsky and YORP Effects. , 2015, , .		60
45	Orbits, Long-Term Predictions, Impact Monitoring. , 2015, , .		13
46	PHYSICAL PROPERTIES OF NEAR-EARTH ASTEROID 2011 MD. <i>Astrophysical Journal Letters</i> , 2014, 789, L22.	8.3	28
47	CONSTRAINING THE PHYSICAL PROPERTIES OF NEAR-EARTH OBJECT 2009 BD. <i>Astrophysical Journal</i> , 2014, 786, 148.	4.5	35
48	TRAJECTORY ANALYSIS FOR THE NUCLEUS AND DUST OF COMET C/2013 A1 (SIDING SPRING). <i>Astrophysical Journal</i> , 2014, 790, 114.	4.5	26
49	Orbit and bulk density of the OSIRIS-REx target Asteroid (101955) Bennu. <i>Icarus</i> , 2014, 235, 5-22.	2.5	193
50	Assessment of the 2880 impact threat from Asteroid (29075) 1950 DA. <i>Icarus</i> , 2014, 229, 321-327.	2.5	33
51	The internal structure of asteroid (25143) Itokawa as revealed by detection of YORP spin-up. <i>Astronomy and Astrophysics</i> , 2014, 562, A48.	5.1	70
52	Nongravitational perturbations and virtual impactors: the case of asteroid (410777) 2009 FD. <i>Astronomy and Astrophysics</i> , 2014, 572, A100.	5.1	15
53	Yarkovsky-driven impact risk analysis for asteroid (99942) Apophis. <i>Icarus</i> , 2013, 224, 192-200.	2.5	85
54	Near Earth Asteroids with measurable Yarkovsky effect. <i>Icarus</i> , 2013, 224, 1-13.	2.5	122

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55	ASTROMETRIC MASSES OF 26 ASTEROIDS AND OBSERVATIONS ON ASTEROID POROSITY. <i>Astronomical Journal</i> , 2011, 141, 143.	4.7	94
56	Development of an observational error model. <i>Icarus</i> , 2011, 212, 438-447.	2.5	13
57	Treatment of star catalog biases in asteroid astrometric observations. <i>Icarus</i> , 2010, 210, 158-181.	2.5	72
58	The impact and recovery of asteroid 2008 TC3. <i>Nature</i> , 2009, 458, 485-488.	27.8	311
59	Long term impact risk for (101955) 1999 RQ36RQ36. <i>Icarus</i> , 2009, 203, 460-471.	2.5	53
60	Astrometric masses of 21 asteroids, and an integrated asteroid ephemeris. <i>Celestial Mechanics and Dynamical Astronomy</i> , 2008, 100, 27-42.	1.4	58
61	Diameters and Albedos of Three Subkilometer Near-Earth Objects Derived from <i>Spitzer</i> Observations. <i>Astrophysical Journal</i> , 2008, 683, L199-L202.	4.5	9
62	A Quantitative Assessment of the Human and Economic Hazard from Impact-generated Tsunami. <i>Natural Hazards</i> , 2006, 38, 355-374.	3.4	36
63	Multiple solutions for asteroid orbits: Computational procedure and applications. <i>Astronomy and Astrophysics</i> , 2005, 431, 729-746.	5.1	64
64	Very short arc orbit determination: the case of asteroid 2004 FU ₁₆₂ . <i>Proceedings of the International Astronomical Union</i> , 2004, 2004, 255-258.	0.0	9
65	Error statistics of asteroid optical astrometric observations. <i>Icarus</i> , 2003, 166, 248-270.	2.5	73
66	Resonant returns to close approaches: Analytical theory. <i>Astronomy and Astrophysics</i> , 2003, 408, 1179-1196.	5.1	111
67	Quantifying the Risk Posed by Potential Earth Impacts. <i>Icarus</i> , 2002, 159, 423-432.	2.5	141
68	The Asteroid Identification Problem IV: Attributions. <i>Icarus</i> , 2001, 151, 150-159.	2.5	39
69	Yarkovsky Effect on Small Near-Earth Asteroids: Mathematical Formulation and Examples. <i>Icarus</i> , 2000, 148, 118-138.	2.5	118
70	Asteroid close encounters with Earth: risk assessment. <i>Planetary and Space Science</i> , 2000, 48, 945-954.	1.7	44
71	Radio Science Results During the NEAR-Shoemaker Spacecraft Rendezvous with Eros. <i>Science</i> , 2000, 289, 2085-2088.	12.6	172